

Determinants of outreach of microfinance institutions in Myanmar

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Abstract

Poverty alleviation programs are being implemented by microfinance institutions (MFIs) with a view to lifting the poor out of poverty in Myanmar, but some of them are unwilling to lend to the very poor. Therefore, this paper tries to find out what kind of organizations lend money to the poor. The purpose of the study was to determine the extent of the penetration of microfinance institutions in Myanmar. This paper uses a quantitative approach using secondary data with multiple regression analysis for the year between 2015-2020. Among the three independent variables, the regression coefficient association between the dependent variable “outreach of MFIs in Myanmar” and “total assets” is positive and it is also statistically significant, whereas the other independent variables are not significant.

keywords: Microfinance institutions, number of borrowers, key determinants, multiple regression.

1. Introduction

Myanmar is a country rich in natural resources. It is also famous for its rich cultural heritage and many places of interest for foreigners to visit. However, it is still a low-income country. To-date, large numbers of people remain below the poverty line. The poverty rate in Myanmar is steadily rising. The poor can get loans and start small businesses to escape poverty. Although lending to the poor is possible for small businesses, the formal sector imposes many restrictions on lending to them. The poor have no access to financial services from the formal sector because they do not have their own business; lack of regular income and lack of collateral also reduce access to formal sector loans. Among the various methods used to fight poverty, the most common is lending to the poor who are unable to get a loan from the formal sector through microfinance institutions, in order to allow them to run a business to earn a regular income. It is one of the most common methods found in almost every country.

The reality of microfinance has become well known since the Grameen Bank was founded by Professor Mohammed Yunus in the 1970s. Microfinance is considered a potential tool to reduce poverty while serving the world's poorest people (Ugur, 2006). It includes cooperatives, rural banks and other cooperatives, Thrift and

Credit Cooperatives (TCCSs), Samurthi Banking Associations (SBSs), Non-Government Organizations (NGOs), MFIs (microfinance institutions) and commercial banks, other financial institutions, including registered financial companies.

Based on the regulatory and accountability aspects, it is assumed that the microfinance sector in Myanmar is more productive if MFIs operate in a lucrative manner in alleviating poverty. So, MFIs must be well designed to be widening outreach numbers and to accomplish a moral obligation in alleviating poverty through implementing effective microfinance programs. Eventually, a win-win situation will also be attained for both parties (Sharma, 2020).

It is true that in a country like Myanmar with a large majority of poor people, microfinance institutions are the only way to help reduce poverty. In such a situation, it is best if all microfinance institutions work together to alleviate poverty, but, in practice, not all organizations have the same aspirations. It is true that some credit unions focus on their own interests rather than eradicating poverty. Due to these circumstances, identifying what kind of institutions are lending to large numbers of the poor is a major issue in this paper. Although the main purpose of microfinance is to reduce poverty, in practice microfinance institutions are operating in many places, but poverty alleviation has not been achieved as successfully as expected. This is the main problem highlighted by this paper. Predominantly, this paper attempts to identify significant determinants of the outreach of microfinance institutions in Myanmar. From a regulatory and an accounting perspective, it is believed that MFIs in Myanmar can be more profitable if MFIs work in a more lucrative way. Therefore, MFIs must be designed to fulfill their ethical obligations to eradicate poverty through widening outreach numbers and the implementation of effective microfinance programs. Eventually, there will be a widening number of borrowers and a win-win situation for both parties (Sharma, 2020).

Currently, there are many microfinance institutions in both rural and urban Myanmar. However, due to the different objectives and standards applied by the lending organizations, the circumstances in which loans are used to alleviate poverty vary from place to place, according to different objectives and attitudes of the borrowers. These loans have been successful in alleviating poverty in some areas but not in others. Therefore, the main purpose of this paper is to focus on the question of what type of lending organizations are contributing to the poverty alleviation by reaching to a large number of borrowers, so that more loans can get into the hands of the poor to truly eradicate poverty. Another area to look at is how much the borrowers' lives have changed and whether or not they have taken out loans from the lending organizations.

Due to the current political, socioeconomic situation in Myanmar, it is difficult to conduct individual interviews and field research, so this is only a paper intended for further study. Mainly, this paper highlights the significant factors of the

breadth of outreach of microfinance institutions in Myanmar. Fifty-four microfinance institutions have been selected within the period of 2015-2020. Multiple regressions have been used to determine the significant predictor variables for the outreach of microfinance organizations.

This paper consists of a number of sections, starting from an introduction that outlines the notion of microfinance in Myanmar. Secondly, a comprehensive literature review illustrating the requisites and the desired variables of the study is included. The third section illustrates the techniques used to discuss the system and to highlight key factors in the outreach of microfinance institutions. The fourth part analyzes the results and the discussion is presented with a data quantitative assessment. The fifth part discusses the conclusions and the recommendations of the study.

1.1 Objective of the study

The main purpose of this paper is to find out what types of microfinance institutions are lending to large numbers of borrowers. Therefore, the objective of the study is to identify the key determinants of the breadth of outreach (number of active borrowers) of Microfinance Institutions in Myanmar.

1.2 Method of Study

This paper applies a quantitative approach using secondary data to find out the key determinants of the breadth of outreach in Microfinance Institutions in Myanmar, using multiple regression and secondary data collected from Financial Regulatory Department (FRD) in Nay Pyi Taw for the year from 2015 to 2020.

2. Literature Review

2.1 Concept of Microfinance

Microfinance is defined as providing financial services to the very poor self-employed. According to Ledgerwood (1999), these financial services generally include savings and loans, but may also include other financial services such as insurance and payment services. Schreiner and Colombet (2001, p.339) promote microfinance as an "effort" to improve access to microcredit and other financial services for poor households neglected by banks. Therefore, microfinance provides financial services such as savings, loans and insurance to the poor living in urban and rural areas who do not have access to these services from the formal financial sector.

(a) Microfinance and microcredit

Although the terms microfinance and microcredit are often used interchangeably in the literature, it is important to highlight their differences as they are often confusing. In Polanco (Polanco, 2001), "microcredit refers to microfinance; microfinance provides loans to NGOs and MFIs for other financial services (savings, insurance, etc.)". Therefore, microcredit is an integral part of microfinance in lending to the poor. However, in microfinance, savings and insurance also include non-loan financial services, such as pension and payment services.

(b) The History of Microfinance

According to Robinson (2001) and Otero (1999), microfinance first developed in the 70's, while from the 50's to the 70's the financial services of donors or governments were primarily funded through rural credit schemes. This was often due to the high fixed debt and loss of access to poor rural households (Polanco, 2001). Inaccessible to poor rural households (Polanco, 2001) until the 80's, MFIs like Grameen Bank and BRI2 represented a turning point in the history of microfinance, Robinson said. Services were highly profitable, although they did not receive continuous support. Economically and financially viable, and fully accessible to a wide range of clients (Robinson, 2001), the term "microfinance" is now more prominent in development (Polanco, 2001). Compared to the rural credit schemes of the 50's and the 60's, microcredit made the difference, as it insisted on repaying the debt by focusing on debt collection and on customers who

depend on the informal sector for debt. It has now been clarified that microfinance can benefit large breakthroughs.

The 1990s saw “an increase in the number of microfinance institutions and an increasing emphasis on scale”. Robinson, 2001, p.54). Dichter (1999, p. 12) refers to the 90’s as the “Decade of Microfinance. “According to Robinson (2001), microfinance has become an industry. With the growth of microfinance institutions, the focus has shifted from microcredit only to other financial services, such as savings and pensions and other services.

The importance of microfinance in the development sector was reinforced by the launch of the Microcredit Summit in 1997. The summit aimed to reach 175 million of the world's poorest families, and especially women from those families. More recently, the United Nations declared 2005 as the International Year of Microcredit.

2.2 Variable Explanation

(i) Breadth of Outreach

Breadth and depth of outreach are both desirable objectives, but there is a trade-off between them and microfinance institutions must choose their priority (Polanco, 2001). At the same time, sustainability is positively correlated to breadth, whereas there is a trade-off between depth and sustainability. The breadth of outreach is used as a dependent variable to study, i.e. which lenders are lending money to the active number of borrowers, that is people between the ages of 15 and 64 who can actively participate in business. Broadness and sustainability are positively related, and both are inextricably linked. Therefore, the smaller the number of customers, the greater the depth or amount of the loan. According to Polanco (Polanco, 2001), when an organization reaches "as many poor people as an organization that focuses on narrow and broad poverty" it reaches a wider depth.

(ii) Age of Microfinance Institution

Age of an MFI is measured in years since its inception. It can be an indicator of the experience and management skills of microfinance programs. The impact of age can double the effectiveness of technology. Some researchers (Nyamsogoro,

2010) point out that, as an MFI matures, its performance improves. Probably this factor explains why some MFIs are doing so poorly. This may be due to the high operating costs experienced by the MFIs as they first enter the market (Nyamsogoro, 2010), and to the ability of older companies to manage short-term losses compared to younger companies. On the other hand, other authors have proven that age has a negative correlation with technical effectiveness. This may be due to the fact that as companies age, they become less responsive to new challenges (Nyamsogoro, 2010).

From the previous literature review, the differences in the number of loans are due to the choice of strategy and maturity of the group; this could be due to a group of customers or a combination of these factors. In choosing a strategy, Christen said, "Larger loan sizes can only be the result of a deliberate strategy or choice. All of the older and more established microfinance institutions in Latin America (including their subsidiaries) started with the clear aim of creating jobs in the urban small business sector in Latin America. Christen described it as a choice of strategy to choose to operate as a non-regulatory entity. Significant differences (in this case, instead of the NGOs and financial institution assessed in the study) may reflect the two groups. Concerning mass maturity, Christen said: "What appears to be a mission spread is nothing more than the natural change in the average loan balance of NGOs that transform themselves into financial institutions. Short-term loans have risen sharply since they all rose well below the borrower's ability to repay the loan. Due to the age of the organization, therefore, years of operations are used to control the effects of time. In fact, Christen et al (1995) stated, when deciding whether to attend, the age of the program should be considered, making comparisons with the success of other organizations. The thing to consider in this case is that the older the organization, the larger the loan amount.

(iii) Type of Institutions

In the previous literature review, (M sai Mohinim Dr V Lavanya, 2019) found that the size of loans between Latin American regulators and non-regulatory microfinance institutions differed significantly between the two groups. Since regulatory MFIs are associated with increased commercialization, Dr V Lavanya questioned whether commercialization was wasting MFI's mission to reach the poor. In his conclusion, Dr V Lavanya ignored the mission spread and said that a large divergence in loans was a strategic choice. This could be due to factors such as the maturity of the portfolio or the customer group. Commercialization, characterized by profitability, competition and regulation, has no effect. To assess for the type-of-institution effect, "dummy variable" on whether the unit of analysis is an NGO (1) or not (0) was used.

(iv) Size of Microfinance Institutions

The organization's size reflects the competitiveness of other companies in the (M sai Mohinim Dr V Lavanya, 2019) and the company's market knowledge. In addition, the size of the organization depends on the technology, differences and other factors related to investment opportunities; size helps to calculate the impact of differences (Wijesiri, Mahinda and Yaron, Jacob and Meoli, Michele, 2015). Therefore, size was included as an exogenous variable to see if the size of the MFI was related to both of its estimates. According to the data, the size of MFIs is measured by their total assets.

(v) Profitability

The rule of law helps MFIs to reap the benefits of poor lenders. As we have previously proposed, commercial logic provides MFIs with the satisfaction of investors and high-quality lenders (Junyon Im ,Sunny Li Sun, 2014). However, in a country with a high rule of law, higher profits make it more attractive to competitors, and the rule of law reduces government interference and barriers to entry and exit. Therefore, economically, MFIs should try to find new ways to provide services to poor borrowers, but they should also expand their demand base. There will be an inverted U-shaped relationship between the profits of MFIs and the poor (Junyon Im ,Sunny Li Sun, 2014). In other words, as the probability of MFIs to provide services to the poor under social security considerations increases, profits increase as well. However, the business logic MFIs are less likely to provide services to the poor and lenders.

2.3 Empirical Literature Review

Microfinance has changed over time as many countries shape poverty alleviation over time. It is found that the researchers who wrote about microfinance performance adopted various measurements. These studies focus on what factors contribute to microfinance outreach. Therefore, it is important to note that outreach cannot be left out when studying microfinance performance. Many factors determine the outreach of microfinance, such as: the age of microfinance institution, profitability, business ownership, business type, business competition, and so on. Some academic papers selected for reading are the following:

Francisco Olivares-Polanco (2001) explains that commercialization, which is considered by profitability, competition, and regulations, does not have any effect

on differences in loan size between regulated and nonregulated MFIs. This paper used data from 28 Latin American MFIs to conduct a multiple regression analysis to test for the conclusions. The results indicate that dummy variable for the control of NGOs and other institutions has no effect on loan size but the age of the institution and competition turned out to have a statistically significant effect on loan size. This means that old age and more competition may lead to larger loan sizes.

Befekadu B. Kereta (2007) considers MFIs performance in Ethiopia from outreach and financial sustainability angles using primary and secondary data sources. The study found that the industry's outreach increased in the period from 2003 to 2007. From a financial sustainability perspective, MFIs are a measure of return on assets and share value. The profitability of the business is growing over time. Similarly, using dependency ratio and Non-performing Loan (NPLs) to loan outstanding ratio proxies, the study also found that MFIs are financial sustainable. Similarly, MFIs have been studied to determine the financial viability of NPLs using the dependency ratio. Finally, it turns out there is no compromise between outreach and financial stability.

KAI, Hisako (2009) examines the relationship between competition, Financial Self-Sustainability (FSS) and wide outreach in socially-motivated MFIs, using the panel data regression methodology by the reduced form of regression. This paper provides a detailed empirical analysis of 450 socially motivated MFIs in 71 countries, coping with the problem of endogeneity. The main results of the analysis in this paper indicate that competition does not have a significant impact on FSS; competition reduces wide outreach and the negative impact of competition on wide outreach declines as the experience of MFIs increases.

Sophyrum Heng (2015) examines the outreach and sustainability of microfinance institutions (MFIs) in Cambodia. This quantitative research uses descriptive statistics and linear regression to illustrate the outreach and sustainability levels of Cambodian MFIs. This paper suggested that to achieve long-term sustainability and penetration, MFIs target a wide range of clients as well as the poor. Increased cost efficiency and credit growth should be maintained at a stable rate and focus on the organizational experience and save more. The Operational self-sufficiency (OSS) variable is used as a proxy variable for sustainability as a dependent variable. Independent variables are the age of the organization, and the number of borrowers can be used as a proxy for the outreach variable. Proxy variables used for efficiency measurement are growth of gross loan portfolio, operation asset, deposit and portfolio at risk. The dummy variable is set to control the impact between the Cambodian and Indonesian microfinance institutions.

Debapratim Purkayastha, Trilochan Tripathy, and Biswajit Das (2018) investigate the impact of competition and regulation on the results of microfinance

institutions (MFIs). This paper uses Lerner's index as a competition proxy and introduces a regulatory intercept proxy as an introductory indicator to examine the specific benefits of MFIs and their impact on MFI results. Capacity building and mass credit decline and MFI profits are severely affected. Regulatory interference creates some convenient places for MFI lenders.

Maenuddin, P Sha'ari Abd Hamid, Annuar MD Nassir and Mohd Padzil Hashim (2020) show that the microfinance sector has seen a significant growth over the past decade, especially in developing countries around the world, but the number of poor people has not diminished. The purpose of this study was to investigate the financial viability of microfinance providers and to identify the different factors or issues that affect them. Suppliers focus on its efficiency/productivity and long-term profitability. Regression analysis is proposed to find the impact of different factors on financial resilience. Factors that undermine the financial sustainability of microfinance providers are: focusing on finance, focusing on profit-oriented programs; high competition; economic behavior of the people, high-interest rates; political instability; developmental obsession. This study suggested that focus on stability and short-term profitability, as well as focus on loan repayment, also represent challenging factors.

Abul Bashar Bhuiyan, Md Jafor Ali, Aza Azlina Md Kassim, Zuraini Alias, Abu Naaim Munir (2020) examine the mission drift and the systematic structure of sustainable research in MFIs. It is a methodological review to look at the research framework to systematically obtain research results for mission drift and MFI sustainability results. According to findings, appropriate research methods can be particularly effective, with researchers using the best approach to studying mission spread and sustainability of MFIs. While studying exploratory research, the average loan size is used as an independent variable in the research process.

3. Research Methodology

3.1 Research Method

(i) Panel Unit Root Test

Panel unit root tests are intended to test the formal concept of unit root for individual series in a panel and time series. Panel unit tests in the presence of segment independence analyze the properties of panel-based unit root tests under

the assumption that the data is distributed separately to individuals. The first unit root tests were Quah (1992, 1994); (Joakim Westerlund and Jörg Breitung, 2009).

In general, this type of panel unit root tests is based on the following univariate regression:

$$\Delta y_{it} = \rho_i y_{it-1} + z'_{it} \gamma + u_{it} \quad (1.1)$$

where $i = 1, 2, \dots, N$ stands for the individuals (cross-sectional units), for each individual $t = 1, 2, \dots, T$ time series observations are available, z_{it} is the deterministic component and u_{it} is a stationary process. Here z_{it} could be zero, one, the fixed effects u_i , or fixed effect as well as a time trend (t). The null hypothesis is:

$$\rho_i = 0 \forall i \quad (1.2)$$

The main difference between the proposed tests is the heterogeneity level considered under other assumptions (Joakim Westerlund and Jörg Breitung, 2009). Using random field methods *i. i. d.* and the asymptotic standard of the DF unit root t-static for a model is obtained. As both N and T grow as expected, there is no disruption between groups. In particular, N and T are assumed to be moving at the same rate since N / T is infinitely constant.

Unfortunately, the random approach can be used with more general criteria (i.e., to accept specific effects (or serial correlations in disturbances)) or multivariate analysis (i.e., integration testing). Breitung and Mayer (1994) obtained a large N as expected and a small fixed T that matched most of the microeconomic panel data. In this framework, forms of serial correlation can be included for each individual (this includes only a limited number) and time-specific random effects (N can be estimated as it grows as expected). The asymptotic dimensional assumptions of Breitung and Mayer are not suitable for panel data with the same or larger sequence in T and N . In addition, their approach can allow for different residual distributions, and the influence of individual effects can have a significant impact on the appropriate critical values for evaluating unit root t-statistic. The experiments proposed by Quah and Breitung and Meyer have not been discussed here since Levin and Lin (1992, 1993) went through the paper.

Methods of panel unit root tests are Levin, Lin and Chu (2002) test, Im, Pesaran and Shin (2003) tests, the Fisher's type test: Maddala and Wu (1999) and Choi (2001) test, Augmented Dicky-Fuller test (ADF) and Philips- Perron test (PP) tests. Among them Augmented Dicky-Fuller test (ADF) and Philips- Perron test (PP) tests are applied for the requirement of this paper.

(ii) Multiple Linear Regression Model

Multiple linear regression (MLR), also known as multiple regression, is a statistical method that uses multiple explanations to predict the outcome of a response. The goal of multiple linear regression is to model the linear relationship between explanatory (independent) variables and response (dependent) variables. In essence, multiple regression is an extension of the normal least squared (OLS) regression because it contains various explanatory variables.

Formula and Calculation of Multiple Linear Regression

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \epsilon$$

Where, for $i = n$ observations: y_i =dependent variable x_i =explanatory variables

β_0 =y-intercept (constant term) β_p =slope coefficient for each explanatory variable ϵ =the model 's error term (also known as residuals)

Simple linear regression is a function that allows an analyst to make predictions about the value of the dependent variable using the score of the independent variable. The multiple regression pattern extends the analysis to several explanatory variables to predict the outcome of the dependent variable. The multiple regression model is based on the following assumptions.

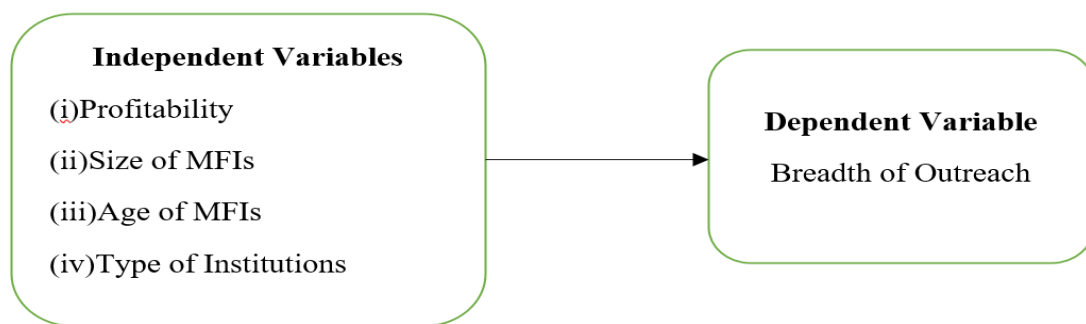
- (i) There must be a linear relationship between the dependent variable and the independent variables.
- (ii) Observations are selected independently and randomly from the population.
- (iii) The independent variables are not highly correlated with each other (no multicollinearity).
- (iv) The residuals have constant variance across the values of the independent variables (no heteroskedasticity).
- (v) The residuals are normally distributed with a mean of 0 and variance σ .
- (vi) The errors are uncorrelated in successive observations.

R-squared is a measure of the strength of the linear relationship between the independent variables and the dependent variable. When interpreting the results of multiple regression, beta coefficients represent the change in the dependent variable relative to a one-unit change in each independent variable, while holding all other variables constant.

3.2 Research Design and Conceptual Framework

Secondary data were obtained from 54 credit associations from 2015 to 2020 in Myanmar. The data were first tested on the panel unit root test on the Augmented Dickey-Fuller (ADF) test and the Philip-Peron (PP) test. Once the unit root test was completed, multiple regression analysis was used to identify the key factors influencing the breadth of outreach. The conceptual framework of the study is as follows.

Fig. 1 Conceptual Framework of the study



Source: Author's illustration

The Breadth of outreach is used as a dependent variable to study, i.e. which lenders are lending money to the active number of borrowers, that is people between the ages of 15 and 64 who can actively participate in the business. Independent variables are Profitability (in terms of net profit, measured by kyats (the currency of Myanmar), size of MFIs (in terms of total assets and measured by kyats), age (measured by years), and type of institutions (NGOs, for-profit Companies).

Tab. 1 Variables, Proxies and Data Sources

Variables Notation		Proxy/ Determinants	Units	Data Sources
NB (Number of Borrowers)	Y	Breadth of Outreach	Number	Financial Regulatory Department (FRD)
NP (Net Profit)	X	Profitability	Myanmar kyats (Million)	Financial Regulatory Department (FRD)
TA (Total Assets)	X	Size of MFIs	Myanmar kyats (Million)	Financial Regulatory Department (FRD)
AGE(Age)	X	Age of MFIs	Years	Financial Regulatory Department (FRD)
(NGOs, Companies)	X	Type of Institutions	(NGOs=1, Companies=0)	Financial Regulatory Department (FRD)

Source: Authors' illustration

4. Empirical Results and Discussions

4.1 Descriptive data

The basic statistics calculated for this research are presented in the following table.

Tab. 2 Descriptive Statistics (2015-2020)

Variables	Mean	Std. Dev.	Maximum	Minimum
NB	8856.99	46807.52	567733.8	0.0
NP	606.77	4236.606	57654.17	-402.4
TA	10872.71	55032.67	657268.9	13.32
AGE	8.02	2.58	13.0	6.0

Source: Author's Calculation

Table 2 shows the summary statistics of the variables used in this study for the period of 2015 to 2020. According to Table 2, the number of borrowers ranged from 0 to 567,734, averaging 8,857.

The average value of NP for net profit is 606.77 and the lowest and highest values are -402.4 and 57,654.2. The minimum and maximum values for total assets (TA) are 13.32 and 657,268.9, with an average of 10,872.7.

The average year is 8 and the minimum and maximum age of microfinance institutions are 6 years and 13 years, respectively.

4.2 Result of Panel Unit Root Test

The Augmented Dicky-Fuller (ADF) test, also known as the standard unit root test, and the PP ((Phillips-Perron) test were used to determine the degree of stationary of the variables used in the model.

A panel unit root test is needed to be tested as a requirement to use multiple regression analysis: multiple regression cannot be used unless all variables are stationary at the level and, in such a case, it needs to be switched to other models.

Table 3 shows the calculated results of the panel data.

Tab. 3 Results of panel unit root test

Variable	Level	ADF		PP		Result
		Statistics	Prob.	Statistics	Prob.	
		t= -7.501	-3.450***	t= -7.503	-3.450***	
NB	I(0)	-2.870**	0.0000	-2.870**	0.0000	Stationary
		-2.571*		-2.571*		
		t= -7.690	-3.450***	t= -11.479	-3.450***	
NP	I(0)	-2.870**	0.0000	-2.870**	0.0000	Stationary
		-2.571*		-2.571*		
		t=-7.527	-3.450***	t= -7.601	-3.450***	
TA	I(0)	-2.870**	0.0000	-2.870**	0.0000	Stationary
		-2.571*		-2.571*		
		t=-3.903	-3.450***	t= -5.161	-3.450***	
AGE	I(0)	-2.870**	0.0023	-2.870**	0.0000	Stationary
		-2.571*		-2.571*		

Note: *, **, *** presents 10%, 5% and 1% significant level respectively.

Source: Author's Calculation

Table 3 shows test statistics, the first four tests and results were performed in the first experiments to check p-values and stationary status. The panel unit root tests used in this research are ADF and PP tests to test all variables using Stata software. As a result, variables are used to ensure that they do not exist in I (1) and I (2). All variables are stationary at level I (0).

The null hypothesis and alternative hypothesis of panel unit root tests can be deliberated as: panel data have a unit root (non-stationary); and: panel data have no unit root (stationary). Acceptance or rejection of null hypothesis can be supposed by two ways: checking the test statistics with critical values from 1%, 5%, and 10% confidence levels and another way is checking with p-values. For the first method, the absolute value of the test statistics must be greater than the absolute value of the values criticized to reject the null hypothesis. For the second method, the p-value must be at least less than 10% significance level in accordance

with rejecting the null hypothesis of sustaining unit root. All variables are stationary at the level.

4.3 Results of Estimation of Multiple Regression Model

In this paper, multiple regression model is used to estimate influencing factors of breadth of outreach in microfinance institutions by using EViews 8 software.

Table 4: Results of estimation of multiple regression model

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-974.4397	541.6876	-1.798896	0.0729
NP	0.106218	0.098096	1.082796	0.2797
TA	0.840810	0.007539	111.5227	0.0000
AGE	82.92073	64.67881	1.282039	0.2007
DUMMY	-1113.012	892.4267	-1.247175	0.2132
R-squared			0.995921	
Adjusted R-squared			0.995872	
S.E. of regression			3007.456	
F-statistic			20204.23	
Prob (F-statistic)			0.000000	

Source: Author's Calculation.

4.4 Results Discussion

Net profit (NP) is one of the explanatory variables proposed to test in this study. As the regression result depicts, (0.106218, $p = 0.2797$) has no significant effect on breadth of outreach of MFIs. In the current situation in Myanmar, some profitable lending institutions are more likely to focus on profit and lend to a person who comes to pay collateral because they are sure to earn higher interest rates. Lending to the poor and low-income people compared to entrepreneurs can be risky. Total assets is the second independent variable selected to examine its relationship with outreach of microfinance borrowers. The regression outcome shows that (0.840810, $p = 0.0000$) affects the outreach of microfinance borrowers significantly with a positive relationship. Therefore, the more the total assets, the more lending to the borrower.

The regression outcome reveals the existence of insignificant relationship between age of microfinance institution and outreach of MFIs (82.92073, $p = 0.2007$). It is not surprising that age has nothing to do with the outreach of microfinance institutions. Although microfinance associations have been around for a long time, it is not clear how much they will lend. It may take a long time to set up, but it is possible to get a small loan. Although it has only recently been established, it is possible to borrow more. It depends on the purpose and objectives of the microfinance institutions and their willingness to reduce poverty. Therefore, it has been observed that the length of the establishment does not have a direct effect on the outreach of the lending industry. The type of institution also has no effective correlation with the amount of outreach of the microfinance institutions. This paper does not prove to be effective in studying dummy variables with NGOs (1) and companies (0).

5. Conclusions

The findings of this paper show that all variables have no significant effect except total assets, a proxy of MFIs size. The study found that the higher the total assets of lenders (that means the larger the size of the MFIs) the more people lend to the poor. However, there is no correlation between the age of the organization and the outreach of the lending organization in Myanmar. Some of the paper that has been studied about this variable found the age to be relevant and some have not. In fact, in general, these variables may be less relevant. This is because even though the business is mature, it cannot be guaranteed that it will lend to a large number of

borrowers. A study of net profit found that the lending industry was more profitable, but it was not expected to lend more to borrowers. It has been observed that some MFIs in Myanmar focus only on the profitability of their business; they are more willing to lend to more profitable business owners, who are more secure than those who are less secure and less profitable. According to the Junyon Im and Sunny Li Sun (Junyon Im ,Sunny Li Sun, 2014) as the probability of MFIs providing services to the poor under social security considerations increases, profits increase. However, the business logic MFIs are less likely to provide services to the poor and lenders. This paper also found that the type of institution (NGO, Companies) was not as relevant to the breadth of outreach of MFIs, as other studies did.

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